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Unnatural Competition? Applying the New Antitrust Learning to Foster Competition in the Local Exchange

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by
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Introduction

Over three years have passed since the adoption by Congress, in February of 1996, of the much-heralded Telecommunications Act of 1996 ("the Act").[1] The popular and political response to the Act at the time of its passage was extraordinarily enthusiastic. The Act was hailed as a harbinger of technological miracles and vigorous competition. It was said that the Act's provisions would end the existing bottleneck monopolies controlled by local exchange telephone companies ("LECs"), and would also erode the existing *de facto* monopolies controlled by local cable television operators. Indeed, so confident were the authors of the Act that cable competition would emerge that they scheduled essentially all rate regulation of cable television to end in March of 1999.[2] The future of local telephone competition was less certain, but the Act imposed a number of obligations on LECs that were designed to create local competition. Furthermore, the Act sought to create incentives for LECs to cooperate in the development of local competition by offering the carrot that once the Bell Operating Company LECs complied with certain competition-permitting requirements, they

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1. *See* Pub. L. No. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 47 U.S.C.). The Telecommunications Act of 1996 primarily amended the existing provisions of the Communications Act of 1934, which has been codified in Title 47 of the United States Code.

2. *See* Telecommunications Act of 1996 § 301(b), 47 U.S.C. § 543(b)(4) (1998).

would be permitted to enter into the long-distance telephone market from which they had been long excluded.[3] That provision, it was hoped and expected, would provide the requisite impetus for LEC cooperation, and so create openings that other telecommunications firms would then take advantage of to enter the local market.

Over three years later, it is fair to say a consensus has emerged that the impact of the Telecommunications Act has been disappointing. Cable and local telephony remain essentially complete monopolies, and the primary impact of the Act seems to have been to trigger a wave of mega-mergers within the industry, with no discernable beneficial impact on consumers. The best that can be said in defense of the Act is that three years is too soon to judge, and that we must wait and see what the true impact of the Act will be (especially because full effectiveness of the Act has been delayed by extensive litigation challenging the FCC's implementation of it).[4] However, as time passes and competition fails to develop, serious questions must be asked about whether the Act's fundamental approach towards fostering local competition, which is to remove legal entry barriers, mandate interconnection, but otherwise rely on market forces to induce entry and competition, is likely to be an effective one.

The thesis of this paper is that for reasons both theoretical and practical, the model of competition upon which the local competition provisions of the Telecommunications Act is premised is an inadequate one, and that therefore the Act does not go far enough in fostering local telephone competition. In particular, this paper suggests that the economic model underlying the Act, which is essentially the model of neoclassical price theory as interpreted by the so-called Chicago School, incorporates a static view of competition and an exaggerated faith in entry and market forces, which therefore underestimates the potential for anticompetitive results in unregulated markets. This paper draws upon recent learning in the antitrust field to suggest that even if competition is in principle possible in local telephone markets, the current structure and circumstances of those markets make them susceptible to effective, anticompetitive conduct by incumbent LECs. Unless checked, such conduct is capable of indefinitely postponing entry by potential rivals. Therefore, this paper concludes, serious thought needs to be given to the possibility of reforming the Act, or implementing it in ways, so that the resulting regulatory structure does not merely permit competitive entry into local telephony, but rather actively encourages and fosters such entry. In particular, it may be time to consider

3. *See* Telecommunications Act of 1996 § 271, 47 U.S.C. § 271 (1998).
4. *See, e.g.*, AT & T Corp. v. Iowa Util. Bd., 525 U.S. 366, 119 S. Ct. 721 (1999).

whether constraining (and to some extent handicapping) LEC incumbents is necessary, so that a competitive market structure can take root free of anticompetitive interference.

I. Fables of the Divestiture

Before delving into the details of economic models and the competition-permitting provisions of the 1996 Telecommunications Act, it is informative to begin with a story—the story of the development of competition in the long-distance telephone industry following the breaking up of the vertically integrated Bell System in the early 1980s. This story is relevant in two different ways. First of all, most people consider the evolution of competition in long-distance telephony to be a success story, and indeed it is quite clear that developments in the long-distance industry provided the impetus, and the model, for the local competition provisions of the 1996 Act. But second, there is an oddity in the story of long-distance competition. Competition has in fact developed in the long-distance industry (albeit imperfect competition), but there is a substantial argument that it should *not* have, given conditions in the industry at the time. Why competition nonetheless did develop is a complex story, which offers interesting lessons for local competition.

When in 1984 the old Bell System was broken up, it was believed that technological changes over the past two decades (in particular, the advent of microwave technology) had rendered obsolete the traditional assumption that long-distance telephony was an industry with natural monopoly characteristics, because microwaves do not share the large fixed costs, large capacity, and small incremental costs typical of wireline networks. Nonetheless, according to the Department of Justice, the Bell System had been able to retain monopoly control over long distance (as well as equipment manufacturing) by using its continuing *local* monopoly power to impede entry into those markets. The theory behind the Divestiture was therefore that once the local exchange monopoly bottlenecks of the Bell System were divided from potentially competitive markets such as long distance and equipment manufacturing, competition could develop in these markets because the companies controlling the local monopolies would no longer have any incentive to favor AT&T (which controlled the competitive portions of the old Bell empire).[5] So, the theory went, once those barriers to competition had been lifted, AT&T's existing long-distance rivals (who were small but

5. *See generally* United States v. American Tel. & Tel. Co., 552 F. Supp. 131 (D.D.C. 1982); Joseph Kearney, *From the Fall of the Bell System to the Telecommunications Act: Regulation of Telecommunications Under Judge Green*, 50 HASTINGS L.J. 1395 (1999).

growing at the time) and new entrants could challenge AT&T's effective monopoly in long distance, and competition could flourish.

And flourish it did, so that 15 years later most people would agree that the long-distance market is at least workably competitive.[6] By the mid-1990s three major competitors existed in the long-distance industry (AT&T, MCI, and Sprint), as well as hundreds of minor players, and AT&T's market share had declined to about 50%.[7] Indeed, competition had become sufficiently well rooted that in November of 1995, prior to the passage of the 1996 Act, the FCC adopted an order declaring that AT&T was no longer the "dominant" long-distance carrier, and therefore freeing AT&T from the asymmetric regulation to which it had been subject.[8] Certainly not all agree that competition in long distance has been a complete success, and there are continuing, serious claims of oligopolistic interdependence among the big three long-distance carriers;[9] but on the whole, the Bell System Divestiture has been considered by most to be a true success story in the modern annals of "deregulation."

What is odd about the fable I have just recounted is that though events following the Divestiture appear to have largely met the expectations of its framers, all indications are that they should not have. This is because by the mid-1980s, when interexchange competition was first taking root, the technological story underlying the Divestiture was already out of date. Instead of microwave, the dominant technology in the long-distance industry was rapidly becoming fiber optics, a technology that appears to possess the same (and indeed arguably greater) natural-monopoly cost characteristics as traditional copper wires. If, as seems likely, it is correct that fiber optics possesses natural monopoly characteristics, then arguably by the late 1980s AT&T should have been able to consistently offer services at prices lower than any of its rivals (since AT&T, by virtue of its size, should have possessed far greater economies of scale, and lower costs, than any other company), and so should have been able to reestablish its monopoly position. Indeed, Paul MacAvoy and Kenneth Robinson suggested this possibility as early as 1983,[10] and

6. *See, e.g.*, David L. Kaserman & John W. Mayo, *Competition and Asymmetric Regulation in Long-Distance Telecommunications: An Assessment of the Evidence*, 4 COMM. LAW CONSPECTUS 1 (1996); Simran K. Kahai et al., *Is the "Dominant Firm" Dominant? An Empirical Analysis of AT&T's Market Power*, 39 J.L. & ECON. 499 (1996).

7. Kasserman & Mayo, *supra* note 6, at 2.

8. *See* In re AT&T Corp., 11 F.C.C.R. 3271 (1995).

9. *See* PAUL W. MACAVOY, THE FAILURE OF ANTITRUST AND REGULATION TO ESTABLISH COMPETITION IN LONG-DISTANCE TELEPHONE SERVICES (1996).

10. *See* Paul W. MacAvoy & Kenneth Robinson, *Winning By Losing: The AT&T Settlement and Its Impact on Telecommunications*, 1 YALE J. ON REG. 1, 31 (1983) ("[T]he divestiture will specifically convey some natural monopoly advantages to AT&T....

soon after, in 1987, Peter Huber also raised such concerns in his Geodesic Network report written on behalf of the Department of Justice.[11] Since then, Paul MacAvoy has reiterated this theory, that AT&T has the capability to recover market share at will.[12] Under this view, true long-distance competition could not, and should not have emerged.[13]

So what happened? Assuming (as I am inclined to do, contrary to Huber and MacAvoy) that AT&T did not (and continues not to) simply voluntarily forego increasing its market share, the answer appears to be that during the 1980s, competition between AT&T and its major rivals (primarily MCI and Sprint) did not occur on a level playing field. Instead regulators, including both the FCC and state PUCs, heavily handicapped AT&T, both through onerous, asymmetric regulatory requirements and through imposition of higher costs. First, during this period AT&T was subject to tariffing requirements—i.e., a regulatory obligation that all services provided by AT&T be pursuant to filed tariffs, which were in turn subject to regulatory and private challenge—to which no other long-distance carrier was subject.[14] In addition, and even more significantly, during the years immediately following Divestiture AT&T paid substantially higher "access charges" to LECs than its rivals, on the order of *55 percent* higher in fact (access charges are charges paid by long-distance carriers to local exchange carriers because of the fact that all long-distance phone calls must pass through the networks of local exchange carriers at both ends of the call).[15] Finally, as commentators noted at the time, AT&T was subject to any number of other asymmetric, and quite burdensome regulatory obligations during this period imposed by both federal and state regulators, to which no other interexchange carrier was subject.[16] *In toto*, these additional

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[T]he competition currently in existence has survived only because of the regulatory 'umbrella' that kept AT&T rates up. When the umbrella folds and the [rival carriers] are made to pay full access charges, the competition will also fold.").

11. *See* PETER W. HUBER, U.S. DEP'T OF JUSTICE, THE GEODESIC NETWORK: 1987 REPORT ON COMPETITION IN THE TELEPHONE INDUSTRY 3.1-3.7 (1987).

12. *See* MACAVOY, *supra* note 9, at 93-98.

13. *See generally* Lee L. Selwyn & Patricia D. Kravtin, *Long-Run Regulation of AT&T: A Key Element of a Competitive Telecommunications Policy*, TELEMATICS, Aug. 1984 at 12; Lee L. Selwyn, *Assessing Market Power and Competition in the Telecommunications Industry: Toward an Empirical Foundation for Regulatory Reform*, 40 FED. COMM. L.J. 193, 207 (1998).

14. *See* MCI Telecomm. Corp. v. American Tel. & Tel., 512 U.S. 218, 220-23 (1994).

15. *See* MACAVOY, *supra* note 9, at 45; Huber, *supra* note 11, at 3.5-3.6. The justification for this surcharge was that AT&T enjoyed a superior quality of access to local exchange networks than its rivals, since presubscription and 1 + dialing had not yet been implemented by the newly divested Bell Operating Companies.

16. *See* David L. Kaserman & John W. Mayo, *Long-distance Telecommunications*

obligations necessarily raised AT&T's costs substantially, and artificially, above levels it might have attained in an unregulated environment, and also above the costs faced by its rivals. As a result these rivals were able to acquire substantial market share at AT&T's expense during the first few, crucial years following Divestiture.[17]

In 1987, the most important regulatory disadvantage faced by AT&T, which was the 55% surcharge on the local access charges it paid, was removed.[18] During the 1990s AT&T also successfully challenged the FCC's asymmetric tariffing policies, which had subjected AT&T alone to tariffing requirements.[19] And by the end of 1995, the FCC removed most of the remaining asymmetric federal requirements by holding that AT&T was no longer the "dominant" carrier in most domestic markets.[20] By the time these asymmetries were phased out, or even reduced substantially, however, AT&T's rivals in the long-distance industry, notably MCI and Sprint, were sufficiently entrenched that a stable competitive environment had been created in the industry. Long-distance firms other than AT&T were too well known and had too much physical plant in the ground for them to be seriously vulnerable to predatory activity by AT&T. In particular, by a decade after the Divestiture, AT&T's rivals had deployed sufficient, fully-developed fiber optic networks that by this time AT&T owned less than half of the deployed fiber in the country.[21] As a result, the long-distance industry already possessed substantial excess capacity, most of which was not owned by the putative dominant firm, and the marginal cost of activating that capacity was quite small. Furthermore, the smaller firms in the industry enjoyed sufficient name recognition to have developed a loyal customer base. In short, the long-distance market had evolved to a point where it was utterly implausible to think that AT&T could force its rivals to exit the market, and it therefore was simply too late for AT&T to regain its long-distance monopoly.

Policy—Rationality on Hold, PUB. UTIL. FORT., Dec. 22, 1988, at 18.

17. *See* MACAVOY, *supra* note 9, at 83-85 (noting sharp decline in AT&T's market share from 1984 to 1989).

18. Despite the elimination of the surcharge, regulators have continued to disadvantage AT&T somewhat by denying it cost-based and volume-based discounts on access charges to which it would otherwise be entitled. *See* MACAVOY, *supra* note 9, at 51-57.

19. *See MCI Telecomm. Corp.*, 512 U.S. at 220-23.

20. *See in re* AT&T Corp., 11 F.C.C.R. at 3281.

21. *See* MACAVOY, *supra* note 9, at 93-98.

II. The Chicago School and "Post-Chicago": A Tale of Two Models

The story of the development of competition in long-distance telephony set forth above is one of evolution, regulatory management, and to some extent serendipity. In essence it suggests that if regulators had truly "deregulated" the long-distance industry in 1984 and created an even playing field for all competitors, as purists would have had it, competition would never have emerged in the industry. Instead, AT&T would have been able to take advantage of its greater economies of scale to force out its fledgling rivals, as natural monopoly theory dictates, and reestablish dominance. It is only because of regulatory intervention, and the handicapping of AT&T during the first decade of competition, that that result did not prevail.

Despite its visceral appeal, however, this story appears to be nonsensical from the perspective of traditional economic theories of natural monopoly and neoclassical price theory, especially as interpreted by the so-called "Chicago School" of law and economics. Neoclassical price theory is the dominant theoretical approach of the Chicago School, and provided much of the theoretical basis for the revolutions in both antitrust and regulatory policy during the 1980s.[22] For example, Chicago School price theory has been deployed by both scholars and the courts to criticize antitrust claims alleging "predatory pricing."[23] More generally, Chicago School scholars have pervasively deployed price theoretic arguments to contend that cartel-like behavior among competing firms tends to be unstable, the general threat of entry tends to make anticompetitive conduct unprofitable, and firms tend to react rationally to anticompetitive conduct by their rivals. As a consequence, antitrust law should be extremely dubious of claims brought by rivals of exclusionary practices by firms with market power.[24] The impact of the Chicago School on regulatory policy is less obvious than on antitrust policy, but is almost certainly

22. The two most prominent applications of Chicago School price theory to antitrust issues are ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF (1978) and RICHARD A. POSNER, ANTITRUST LAW: AN ECONOMIC PERSPECTIVE (1976). Since the time those studies were published, the Chicago School's version of price theory has also become the dominant analytic mode employed by the Supreme Court in antitrust cases. *See, e.g.*, Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574 (1986); State Oil Co. v. Kahn, 522 U.S. 3 (1997).

23. *See, e.g.*, BORK, *supra* note 22, at 144-60; Frank H. Easterbrook, *Predatory Strategies and Counterstrategies*, 48 U. CHI. L. REV. 263 (1981); Brooke Group Ltd. v. Brown & Williamson Tobacco Co., 509 U.S. 209 (1993).

24. For a general summary of the Chicago School approach, see Herbert Hovenkamp, *Antitrust Policy After Chicago*, 84 MICH. L. REV. 213, 226-33 (1985), and sources cited therein.

reflected in the massive wave of deregulation and unbundling that has swept through regulated industries in the past two decades.[25]

Price theory was of course not the creation of the Chicago School. Price theory has been the dominant model of microeconomic analysis in this century.[26] The most notable characteristic, for the purposes of this paper, of the price theoretic approach to economics is that it tends to analyze markets based on cost structures and expected partial equilibria in specific markets, rather than focusing on the competitive process itself. Put differently, neoclassical models tend to base their analysis on a static view of competition, which emphasizes the expected results of competition, but does not give serious attention to how the behavior of individual firms leads the market to those predicted equilibria. The Chicago School's particular take on neoclassical price theory has refined and, if anything, exaggerated this tendency, because of the Chicago tendency to sharply discount the possibility that "barriers to entry" or other market imperfections might lead markets to deviate from predicted, competitive equilibria.[27] The ultimate result is a model that is skeptical about the possibility of successful anticompetitive behavior or results, and so tends to strongly oppose governmental intervention in markets as a means to "protect" or "foster" competition.[28]

The price theoretic approach to so-called "natural monopoly" industries fully reflects this tendency. An industry constitutes a "natural monopoly" if over the relevant range of demand, the production technology for the good in question demonstrates declining marginal and average costs, so that a single firm is able to supply the entire market at a lower cost than two or more firms, thereby making monopoly the most efficient form of organization for that market.[29] Basic price theory would therefore suggest that if a

25. *See* Joseph D. Kearney & Thomas W. Merrill, *The Great Transformation of Regulated Industries Law*, 98 COLUM. L. REV. 1323, 1400-03 (1998).

26. Probably the leading work establishing the role of price theory in modern economics was Alfred Marshall's PRINCIPLES OF ECONOMICS (1890). Since then, of course, any number of scholars including notably Paul Samuelson have contributed to the refinement and precise mathematical formulation of the neoclassical price theory model. *See, e.g.*, PAUL ANTHONY SAMUELSON, FOUNDATIONS OF ECONOMIC ANALYSIS (1947). For a good, general summary of the current state of microeconomic theory see WALTER NICHOLSON, MICROECONOMIC THEORY: BASIC PRINCIPLES AND EXTENSIONS (5th ed. 1992).

27. *See, e.g.*, Harold Demsetz, *Barriers To Entry*, AM. ECON. REV., March 1982, at 47.

28. *See, e.g.*, Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1 (1984).

29. *See* NICHOLSON, *supra* note 26, at 560; Richard A. Posner, *Natural Monopoly and Its Regulation*, 21 STAN. L. REV. 548, 548 (1969). A somewhat more sophisticated version of the theory of natural monopoly, incorporating the notion of "subadditivity," is set forth in WILLIAM J. BAUMOL ET AL., CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE 17, ch. 8 (1982).

market does indeed demonstrate those characteristics it will inevitably evolve into a monopoly, and so any attempt to introduce competition is quixotic. The traditional solution to this problem was price regulation, though scholars associated with the Chicago School have suggested that because of the possibility of entry and the high costs of regulation, even this may not be a sensible response.[30] If, on the other hand, the efficient scale of production in an industry is *not* monopolistic, entry will occur, and competition will develop. In either case, short-term regulatory responses are irrelevant to the ultimate competitive structure of industry.

Since the 1980s, however, at least in the antitrust arena the heyday of neoclassical price theory and the Chicago School approach appears to have passed.[31] Instead a "new learning," sometimes described as the "post-Chicago" School of economics,[32] has emerged. This approach introduces tools such as game theory; assorted models of "strategic behavior," "foreclosure," and "raising rivals' costs"; awareness of network effects; and path dependency theory to antitrust analysis. The primary commonality among many of the new approaches, which distinguishes them from the Chicago School, is that they tend to focus more on the details of the competitive process than does price theory. Otherwise, the new learning runs a broad gamut, with some theories, especially the game theoretic literature, representing a fundamental shift away from neoclassical economics, while other theories such as "network effects" and "raising rivals' costs" are more properly described as refinements, albeit significant ones, of the price theoretic model. This learning suggests that under certain circumstances, anticompetitive practices, which have been largely discounted by the Chicago School approach, can in fact be feasible, profitable strategies for dominant firms to pursue. Examples of such practices include predatory pricing, exclusionary vertical contracting or integration, "price or supply squeezes," and assorted other forms of exclusionary behavior. More generally, theories based on "network effects," path dependency, and more nuanced models of consumer behavior suggest that free, unregulated markets will fail to produce socially optimal results far more often than neoclassical price theory would suggest. Therefore, governmental intervention can often be a necessary and beneficial tool in guiding markets towards efficient outcomes. While perhaps no particular aspect of this new learning is sufficient to undermine the *laissez faire* prescriptions of the

30. *See* Harold Demsetz, *Why Regulate Utilities?*, 11 J.L. & ECON. 55 (1968); Posner, *supra* note 29, at 618-20.

31. For a general description of this new learning, see *supra* note 24, at 213.

32. *See, e.g.*, Hovenkamp, *supra* note 24, at 225; Michael S. Jacobs, *An Essay on the Normative Foundations of Antitrust Economics*, 74 N.C.L. Rev. 219, 222 (1995).

Chicago School, *in toto* these models do suggest that at least under certain, perhaps limited circumstances, regulatory intervention is indeed more desirable than has been thought in recent years.

Perhaps the most significant component of the new learning to which I refer is the recent literature regarding game theoretic models of predatory behavior by firms, notably predatory pricing models.[33] These theories rely crucially on the existence of asymmetric information between predator firms, typically dominant incumbents, and victims, typically entrants or fringe firms. Certain conditions must be met for predation to be feasible, notably a concentrated market, high barriers to entry, and the existence of a dominant incumbent.[34] But if those conditions are met, these models suggest that predatory behavior such as predatory pricing may be a rational, profitable strategy for a dominant firm to pursue, enabling it to develop a "reputation" as a tough competitor willing to fight off challenges, or to falsely "signal" information regarding costs and demand structures within the market in dispute. Notably, this approach to predatory pricing implies no particular relationship to costs, contrary to the assumptions of the Chicago predatory pricing models.

In addition to the specific analysis of predatory pricing, a related literature has also evolved applying tools of game theory to suggest the feasibility of "strategic entry deterrence" by dominant firms.[35] Again, the crucial insight here is that a dominant firm, by making "binding commitments and communicating them" to potential entrants, such as by incurring large sunk costs, is able to prevent entry even by more efficient rivals by signaling that such entry would be unprofitable.[36] In addition, a dominant firm may be able to engage in "limit pricing" to take advantage of informational asymmetries between incumbents and entrants, and so to deter entry by misleading

33. For good, general descriptions within the legal literature of the new game theoretic models, see Alexander C. Larson & William E. Kovacic, *Predatory Pricing Safeguards in Telecommunications Regulation: Removing Impediments to Competition*, 35 ST. LOUIS U. L.J. 1, 30-33 (1990); Michael S. Jacobs, *An Essay on the Normative Foundations of Antitrust Economics*, 74 N.C. L. REV. 219, 240-45 (1995); Louis Kaplow, *Extension of Monopoly Power Through Leverage*, 85 COLUM. L. REV. 515, 527-31 (1985); James E. Meeks, *Predatory Behavior as an Exclusionary Device in the Emerging Telecommunications Industry*, 33 WAKE FOREST L. REV. 125, 132 & n.28 (1998); Gregory T. Gundlach & Joseph P. Guiltinan, *A Marketing Perspective on Predatory Pricing*, 43 ANTITRUST L.J. 883, 893-95 (1998).

34. *See* Hovenkamp, *supra* note 24, at 275 n.291.

35. *See, e.g.*, Steven C. Salop, *Strategic Entry Deterrence*, AM. ECON. REV., May 1979, at 335; Hovenkamp, *supra* note 24, at 260-70; *cf.* Ian Ayres, *Playing Games with the Law*, 42 STAN. L. REV. 1291, 1304-07 (1990).

36. *See* Salop, *supra* note 35, at 335.

potential entrants regarding the incumbent's cost structure.[37] The crucial point is that as with predatory pricing, these kinds of strategic behavior permit a dominant firm to exploit superior information and dominant market position to impede competition in ways not predicted by the Chicago School.

A substantial literature has also developed regarding the possibility of profitable anticompetitive strategies based on "raising rivals' costs." Steven Salop and Tom Krattenmaker presented what remains the leading legal exposition of this theory in a 1986 article in the Yale Law Journal.[38] The key theme here is that it is possible to envision a number of potentially profitable strategies whereby firms take actions that have the effect of raising the production costs of their competitors, without bearing much cost themselves. If such a strategy is effective, moreover, the firm can then reap monopoly profits without necessarily achieving monopoly market shares, or even excluding its rivals (though exclusion is also a possible, perhaps even likely end result of such a strategy). A prime example of such behavior would be foreclosure through misuse of a bottleneck facility controlled by a dominant firm, to which rivals require access, or through other forms of "supply squeezes" which raise production costs of rivals.[39] Once again, the literature suggests that such conduct can be employed by dominant firms to obtain anticompetitive results, and so may require official intervention.

Some particularly relevant examples of dominant firm strategies falling within the general rubrics of entry deterrence or raising rivals' costs presented in recent economic literature involve dominant firms misusing vertical integration or exclusive vertical contracting to harm competitors or prevent entry into their markets.[40] In general, these papers suggest that contrary to standard Chicago School predictions, when conditions are appropriate, vertical integration or foreclosure by a dominant firm *can* provide an effective, profit maximizing strategy for preventing entry or squeezing existing rivals. For example, a dominant firm may seek to enter into exclusive supply or dealing contracts with downstream purchasers, and so to prevent rivals or entrants from achieving a minimum efficient scale by foreclosing them from selling to a substantial part of the market.

37. *See id.* at 337.

38. *See* Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 YALE L.J. 209 (1986); *see also* Hovenkamp, *supra* note 24, at 274-80; Steven C. Salop & David T. Scheffman, *Raising Rivals' Costs*, AM. ECON. REV., May 1983, at 267.

39. *See* Krattenmaker & Salop, *supra* note 38, at 234-36.

40. *See, e.g.*, Christodoulos Stefanadis, *Selective Contracts, Foreclosure, and the Chicago School View*, 41 J.L. & ECON. 429 (1998); Michael H. Riordan, *Anticompetitive Vertical Integration by a Dominant Firm*, AM. ECON. REV., Dec. 1998, at 1232.

Such a strategy can prevent entry, or it can merely raise rivals' costs and so ensure a stream of economic profits to the dominant firm.[41] Similarly, a dominant firm may be able to vertically integrate upstream, into input markets, and so raise entry costs, or raise the production costs of fringe firms, by controlling access to that input. Such a strategy is only likely to be successful if the market is characterized by a dominant firm and a fringe, but in that situation, if necessary conditions are met, a dominant firm may well have the incentive to manipulate input markets to prevent entry.[42] It should be noted that this strategy is particularly relevant to local telecommunications markets, because under the "unbundling" provisions of the 1996 Telecommunications Act,[43] incumbent LECs are effectively dominant, vertically integrated firms that provide necessary inputs to any putative entrants.[44]

The types of strategies discussed above are specific examples of the types of strategic behavior options available to dominant firms seeking to foreclose entry, or maintain market power and earn economic profits. A complete discussion of potential anticompetitive strategies is beyond the scope of this paper. It is nonetheless quite clear that in certain kinds of markets, characterized by dominant incumbent firms, entry barriers, and sunk costs, successful anticompetitive strategies remain very much a possibility.

Finally, in addition to identifying potentially effective anticompetitive strategies by firms, a substantial body of new literature, in both the economic and legal arenas, has begun to focus on the demand side of markets, and potential market-distorting consequences of particular demand structures. One currently prominent theory looks at so-called "network effects," which Mark Lemley and David McGowan have defined as any situation where consumers of a product derive utility from *other* users using the same, or a compatible product.[45] The telephone network is of course the archetypal example of such a network, since the *only* utility obtained by telephone users is the ability to connect to others using the network.[46] Network effects can create a cascade/tipping situation, where once one firm becomes dominant, the very fact of dominance

41. *See* Stefandis, *supra* note 40, at 431 (citing other literature criticizing the Chicago School's rejection of anticompetitive uses of exclusive dealing).

42. *See* Riordan, *supra* note 40, at 1233-34, 1246.

43. *See generally* Telecommunications Act of 1996, §§ 251-252, 47 U.S.C. §§ 251-252.

44. *See* Riordan, *supra* note 40, at 1234-35.

45. *See* Mark A. Lemley and David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479, 483-84 (1998); see also James B. Speta, *Handicapping the Race for the Last Mile?: A Critique of Open Access Rules for Broadband Platforms*, 17 YALE J. REG. (forthcoming 1999).

46. *See id.* at 488-89.

makes its product more desirable to consumers, and so permits the firm to retain its dominance or develop a monopoly, even if otherwise the firm's product is more expensive or of lower quality.[47] Furthermore, the existence of network effects can create incentives for firms to engage in anticompetitive behavior such as leveraging or predatory pricing, because of the enormous benefits obtained by first-movers in network industries, and because a network monopoly, once established, is quite difficult to dislodge through entry.[48] In particular, in a recent paper Carl Shapiro has demonstrated that exclusive dealing is an especially great anticompetitive concern in network industries.[49] The implications for local telecommunications markets are obvious.[50]

The network effects theory is not a departure, but only a refinement of price theory. Price theoretic models have been criticized more broadly for their treatment of demand as entirely static, and exogenous to market structure or development.[51] Especially in technically dynamic industries such as telecommunications, demand is anything but static, and there is every reason to think that firms, especially firms in rivalry, create demand by introducing new products and technology, and by making it possible for *other* parts of the economy to in turn develop uses for a new technology (especially an infrastructure technology such as telecommunications). That is, "Build it and they *will* come."[52] Innovation and the resulting market dynamism that it can engender are not inevitable, however, nor are they well modeled by static, price theoretic approaches. For example, most observers would agree that innovation is far more likely to occur in rivalrous industries than in monopolistic ones, but there is nothing in the basic neoclassical model that explains why this is so. As a result, however, in technologically dynamic industries, rivalry itself may create demand by speeding up the rate of innovation. What the possibility of demand endogeneity suggests is that even if at current demand levels in a particular market competition may not be viable (*i.e.*, the industry is naturally

47. *See id.* at 495-97.

48. *See id.* at 496.

49. *See* Carl Shapiro, *Exclusivity in Network Industries*, 7 GEO. MASON L. REV. 673 (1999).

50. Despite this, those implications will be discussed in more detail in Part III of this paper.

51. *See, e.g.*, Martha C. Nussbaum, *Flawed Foundations: A Philosophical Critique of (a Particular Type of) Economics*, 64 U. CHI. L. REV. 1197, 1198, 1207-08 (1997); Cass Sunstein, *Endogeneous Preferences, Environmental Law*, 22 J. LEGAL STUD. 217 (1993); Herbert Hovenkamp, *The Limits of Preference-Based Legal Policy*, 89 NW. U. L. REV. 4, 49-54 (1994); GARY S. BECKER, ACCOUNTING FOR TASTE (1996).

52. *Cf. Field of Dreams*, starring Kevin Costner.

monopolistic), it may well be socially beneficial in the long term for regulators to encourage entry, and foster competition for a time because the resulting rivalry may transform the industry into a workably competitive one by increasing demand.[53] Of course, if the development of demand in the face of innovation and new technology were completely predictable one might expect firms to invest in research and enter existing monopolistic markets without regulatory intervention (though the need to invest substantial sunk costs to enter might still deter entry). But great uncertainty regarding the existence and magnitude of demand effects makes such decisions less likely.

Most of the "new learning" described above is, in truth, not really very new. Much of the basic game theoretic literature referred to was written in the 1980s, beginning in 1982.[54] Furthermore, as early as 1985 Herbert Hovenkamp was writing about post-Chicago antitrust.[55] During the 1980s, however, this new academic thinking had only a limited influence on antitrust and regulatory policy, which was still in the process of incorporating the Chicago School insights of the previous decade. In the past decade, however, it is fair to say that the new learning has entered into antitrust policy and law to a substantial extent. Such analysis appears to be influencing current antitrust policy, the recent Justice Department prosecution of Microsoft being the most visible (though by no means the only) example. In the judicial arena, some scholars have argued that the Court's 1992 decision in *Eastman Kodak v. Image Technical Services*[56] represented a turning point, in which the Court indicated a willingness to incorporate into its antitrust analysis "post-Chicago" approaches, such as a focus on transaction costs.[57] The point should not be overstated—there is no doubt that today's antitrust law is still dominated by Chicago School thinking (and that is probably a good thing). But at least with respect to the strongest *laissez-faire* implications of the Chicago approach, the tide appears to have turned, and antitrust decisionmakers seem increasingly willing to hear

53. It should be recalled that the concept of natural monopoly, based as it is on production cost curves, has meaning only for a particular level of demand. As demand increases, almost any industry is likely to face rising marginal costs, and so lose its natural monopoly status.

54. *See, e.g.*, David Kreps & Robert Wilson, *Reputation and Imperfect Information*, 27 J. ECON. THEORY 253 (1982); Paul Milgrom & John Roberts, *Predation, Reputation, and Entry Deterrence*, 27 J. ECON. THEORY 280 (1982); JEAN TIROLE, THE THEORY OF INDUSTRIAL ORGANIZATION 361-88 (1988).

55. *See* Hovenkamp, *supra* note 24.

56. 504 U.S. 451 (1992).

57. *See, e.g.*, Michael S. Jacobs, *An Essay on the Normative Foundations of Antitrust Economics*, 74 N.C. L. REV. 219, 246-47 (1995).

post-Chicago arguments.[58] Given the close, if sometimes antagonistic relationship between antitrust and regulatory policy, it seems appropriate that regulatory policy begin to take account of this new learning as well.

The above analysis including both the feasibility of anticompetitive strategies and possibility of demand-side effects, suggests that there may be a place for regulatory intervention in certain industries (notably ones with dominant, incumbent firms) on a *transitional* basis, including fostering competition by encouraging entry which might not otherwise occur. Such intervention can be phased out once the market acquires a structure making anticompetitive activity difficult, and competition viable.[59] The next section discusses some of the ways in which such interventions might be pursued in the telecommunications context.

III. Implications: Fostering Competition in the Local Exchange

The implications for regulatory policy of the "new learning" described above, and in particular for telecommunications policy, are complex but important. Notably, the new theories of anticompetitive behavior developed in recent years, especially the new game theoretic models of predatory pricing through "signaling" and strategic deterrence, have strong implications for regulators who wish to create competition in previously monopolistic markets. What the new anticompetitive theories have in common is that they suggest that market dominance, usually combined with asymmetric information regarding cost and demand conditions as well as substantial sunk costs of entry, are necessary prerequisites for the sorts of

58. For proof that the new learning has truly entered the mainstream, see *The Economics of Antitrust*, THE ECONOMIST, May 2, 1998 at 62-64.

59. The fact that the regulatory intervention this paper advocates is transitional distinguishes it from the "partial-industry regulation" advocated by Ian Ayres and John Braithwaite. Ian Ayres & John Braithwaite, *Partial-Industry Regulation: A Monopsony Standard for Consumer Protection*, 80 CAL. L. REV. 13 (1992). Ayres and Braithwaite point out that dominant firms are capable of engaging in a variety of anticompetitive practices, such a predatory prices, which may justify regulatory intervention, *see id.* at 19-20; and also point out that protection or support of fringe firms has the potential to improve market performance. *See id.* at 23-27. Indeed, they specifically cite the example of asymmetric regulation of AT&T as an example of successful partial-industry regulation. *See id.* at 49. In these respects, their arguments clearly parallel the positions set forth in this paper. Ayres and Braithwaite, however, appear to envision such asymmetric regulation as a permanent condition, while the premise of this paper is that while asymmetric regulation may be necessary to create appropriate initial conditions and market evolution, the long run objective should be to eliminate asymmetry, so as to ensure that the regulatory system is not preventing a dominant firm from achieving long term efficiency.

sophisticated, anticompetitive strategies the theories posit. When those conditions are met, however, anticompetitive behavior may be effective in preventing new entry for prolonged periods of time, even when a particular market is no longer (or never was) "naturally monopolistic" in the classical sense. Predatory pricing and strategic entry deterrence, price or supply squeezes by a vertically integrated firm, and various foreclosure techniques, might well keep otherwise viable competition at bay for a long time or even indefinitely. The new demand-side learning confirms and reinforces these lessons. Network theory suggests that in network industries, first-mover advantages can be crucial, even outcome determinative, regardless of whether an industry's cost structure is conducive to competition, unless regulators act to distribute the benefits of network externalities.[60] Demand endogeneity suggests (perhaps more controversially) that the very existence of rivalry and resulting innovation can make a competitive market structure viable where earlier it was not. Together, these insights argue that the development of competition within certain kinds of markets is neither inevitable nor impossible, but rather that it may require fostering, and indeed, that the very process of fostering competition may have the effect of making a competitive market structure viable where it earlier was not. Once a competitive market structure has taken root, however, it is likely to remain in place simply because strategic behavior becomes more difficult without dominance, and demand once created is unlikely to disappear.

Another, admittedly somewhat controversial, way of characterizing the analysis presented here is that in some industries, with special characteristics, competition itself may be a path-dependent process. Path dependency theory, as developed most thoroughly in the past two decades by Brian Arthur, suggests that because of the presence of "increasing returns," or "positive feedback" within the economy, certain markets or sectors of the economy are not likely to reach predictable equilibria as suggested by conventional economic theory. Instead, in such markets initial conditions, or random events, can result in the market moving along "a particular path, the choice [of which] may become locked-in regardless of the advantages of alternatives."[61] The essential

60. How that might be done is discussed below.

61. BRIAN ARTHUR, INCREASING RETURNS AND PATH DEPENDENCY IN THE ECONOMY 1 (1994); *see also* Paul David, *Clio and the Economics of QWERTY*, 75 AM. ECON. REV. 332 (1985). For an application of path dependency theory to legal issues, see Marcel Kahan & Michael Klausner, *Path Dependence in Corporate Contracting: Herd Behavior and Cognitive Biases*, 74 WASH. U. L.Q. 347 (1996). For summaries of path dependency theory and criticism of its practical significance, see S.J. Liebowitz & Stephen E. Margolis, *Path Dependence, Lock-In, and History*, 7 J.L. ECON. & ORG. 205 (1995);

prerequisite for such path dependence, or "lock-in," is increasing returns or positive feedback, meaning that as production by a particular firm or of a particular product increases, the returns to be gained from further production also increase. Such increasing returns can occur either because the costs of production decline (which is the conventional supply-side natural monopoly story), or because demand side interactions such as network effects and the need for standardization make the product more desirable to new purchasers as the existing base of users expands.[62] Once a particular market or economic sector is set upon a particular path, the key insight is that market forces alone will *not* be adequate to move to a new path, even if that path is more socially efficient.

The key applications of path dependency theory until now have been in analyzing the adoption of technological standards,[63] and the development of regional and national economies.[64] The theory also, however, appears to be applicable to the market structure analysis developed in this paper. That analysis argues that in an industry characterized by entry barriers, high sunk costs, network effects, and the presence of a dominant, incumbent firm, entry and competition will not necessarily occur through the action of simple market forces. Put differently, the feasibility of anticompetitive entry deterrence by dominant firms may provide the kinds of "positive feedback" necessary for path dependence, because the benefits of such strategic behavior, as well as the benefits from any network effects, are available only to large firms. In such a market, therefore, a competitive industry structure may take root if, but only if, a dominant firm is handicapped by regulators, and otherwise prevented from exercising its dominant power, during the period when competition is developing and the firm's dominance is being eradicated. As Part I of this paper suggests, arguably that is what happened in the long-distance telephone industry during the first decade after Divestiture, and path dependency theory suggests that if during that transitional period the dominant firm, AT&T, had *not* been handicapped, a competitive market structure might never have emerged.[65]

Frederich W. Lambert, Path Dependent Inefficiency in the Corporate Construct: The Uncertain Case with Less Certain Implications, 23 DEL. J. CORP. L. 1077 (1998).

62. *See* ARTHUR, *supra* note 61, at 3-4.

63. *See id.*, ch. 2.

64. *See, e.g., id.*, ch. 3; ELHANAN HELPMAN & PAUL KRUGMAN, MARKET STRUCTURE AND FOREIGN TRADE (1985).

65. This conclusion should be contrasted with the traditional economic argument that asymmetric regulation was a mistake because it prevented regulators from determining if the long-distances industry "really was" a natural monopoly. *See, e.g.*, Kasserman & Mayo, *supra* note 16, at 18.

What are the implications of this insight for the ongoing regulatory attempts, under the authority of the 1996 Telecommunications Act, to create competition in the local telephone exchange? A complete answer is of course impossible within the constraints of this paper, but it should be obvious that the theories and concerns noted in this paper are highly relevant to local telephone markets. These markets are universally characterized by dominant incumbents who are indeed monopolists—the LECs. Sunk costs of entry are likely to be very high, at least for now, since providing local exchange service requires installing a physical network, or at least parts of one. Information is likely to be quite asymmetric, since incumbent LECs possess vastly more knowledge about the markets they serve than any new entrant, even such powerful ones as interexchange carriers. As noted above, the telephone industry is the archetypal example of an industry with network effects (such effects are indeed often deployed to explain the development of the Bell System monopoly in the first place). Finally, the field is characterized by great technological dynamism, where both cost structures and demand are evolving rapidly, and there is great uncertainty regarding the effects on demand of deploying new technology (such as fiber-to-the-curb and digital compression technology). All of these factors indicate that conditions are ripe for path-dependent competition, and the obvious question that arises is what policymakers can do to ensure that these markets take the path leading to competition.

In some ways, the above analysis suggests that in its efforts to create local competition, the 1996 Telecommunications Act got it exactly right. For example, in a physical network industry such as telephony, there is a great danger that the dominant network will gain or retain a monopoly due to increasing returns perceived by users from hooking into that network. Such a result is not, however, inevitable—a monopoly can be prevented by requiring the dominant network to assure interconnection and interoperability with competing networks, so that the increasing network returns are made available to all competitors, rather than being appropriated by the dominant network.[66] Therefore, the Act's strong emphasis on mandated interconnection is essential, if the first mover (i.e., the LEC) is not to achieve or retain dominance.[67] Of course, mandating interconnection and achieving it are different things, and maintaining nondiscrimination, parity, and interconnection will in reality require a level of ongoing regulatory oversight which is a far cry from the "deregulation" touted by the Act's sponsors.

66. *See* Lemley & McGowan, *supra* note 45, at 549-50.

67. *See* Telecommunications Act of 1996 § 251, 47 U.S.C. § 251(1998).

In other ways, however, the Act is less than ideal; path dependency analysis suggests that the 1996 Telecommunications Act may not have gone far enough in its efforts to create local competition. Insofar as the legislation relies on "natural market forces" or Chicago-School type expectations of inevitable entry to produce competition in the absence of natural-monopoly cost structures, the expectations may not be met.[68] Instead, recognition is needed that entry may need to be encouraged, protected, fostered, and even subsidized at first if it is to occur at any significant level. It is probably too late to amend the legislation,[69] but at the least administrators should keep this thought in mind in implementing the Act.

As an example of the need for regulatory awareness of strategic and path-dependency concerns, consider the current debate over the appropriate prices that new entrants should have to pay for access to LEC incumbents' network elements.[70] Many a forest has been felled over this question,[71] but in truth, for policymakers the "correct" resolution of this debate may ultimately be irrelevant. Suppose we concede that the FCC's chosen measure, Total Element Long-Run Incremental Cost ("TELRIC") is "inefficient," in that it insufficiently compensates LECs (because it provides inadequate contribution to existing, historical fixed or common costs, and denies recovery for opportunity costs[72]), and Efficient Component Pricing Rule ("ECPR") favored by most commentators is "superior" in some

68. For a typical exposition of this position, see J. Gregory Sidak and Daniel F. Spulber, *Deregulation and Managed Competition in Network Industries*, 15 YALE J. ON REG. 117, 127 (1998) (stating that regulating incumbents more heavily is "not necessary... [because] market returns that can be earned by providing telecommunications services are reward enough to encourage entry").

69. It seems unlikely that the confluence of events which permitted all relevant industry groups to sign on to the 1996 legislation will repeat itself in our lifetimes.

70. *See generally* AT&T Corp. v. Iowa Util. Bd., 525 U.S. 366, __, 119 S. Ct. 721, 728 (1999) (discussing FCC's adoption of "Total Element Long Run Incremental Cost (TELRIC)" as the appropriate pricing measure, and upholding FCC's authority to require state regulators to use TELRIC in pricing local network elements); *cf.* WILLIAM J. BAUMOL & J. GREGORY SIDAK, TOWARD COMPETITION IN LOCAL TELEPHONY ch.7 (1994) (advocating "efficient component-pricing rule (ECPR)" for pricing inputs to competitors).

71. *See, e.g.*, William J. Baumol & Thomas W. Merrill, *Does the Constitution Require that We Kill the Competitive Goose? Pricing Local Phone Service to Rivals*, 73 N.Y.U. L. REV. 1122 (1998); J. Gregory Sidak & Daniel F. Spulber, *The Tragedy of the Telecommons: Government Pricing of Unbundled Network Elements Under the Telecommunications Act of 1996*, 97 COLUM. L. REV. 1081 (1997); J. GREGORY SIDAK & DANIEL F. SPULBER, DEREGULATORY TAKINGS AND THE REGULATORY CONTRACT (1997).

72. *See* Jim Chen, *The Second Coming of* Smyth v. Ames, 77 TEX. L. REV. 1, 9 (1999) (citing 47 C.F.R. § 51.505(d)(1)(3)).

sense, because it reduces inefficient entry.[73] Nonetheless, TELRIC pricing of network components may make sense because it is a way of encouraging entry in the face of fear of predation, and also a way of reducing the danger that the incumbent will engage in a supply squeeze, or targeted predation against an entrant. More generally, TELRIC is more likely to bring firms into local exchange markets piecemeal, making the risk of anticompetitive conduct by incumbents less likely as they lose dominance, especially if the entry that does occur is by innovative firms that are able to develop new market niches (i.e., expand demand).[74] This is of course a somewhat unorthodox defense of TELRIC, suggesting as it does that on occasion TELRIC will induce *inefficient* (meaning higher-cost) entry but that this is not necessarily a bad thing if in the long run such entry leads to the development of a sustainable, competitive market. Similar logic also suggests that LECs, and not entrants, should bear the non-recurring costs of transition to competition,[75] or at the least that they be shared between LECs and entrants rather than imposed entirely on entrants, as LECs argue with some economic justification (because, as the LECs correctly point out, such transition costs are caused by entrants, not LECs).

As with its requirements of interconnection, network unbundling, and component pricing, the 1996 Act's provisions for resale of retail LEC services are also crucial steps on the path to competition, and must be fostered. Resale is particularly important because by permitting non-facilities-based or piecemeal entry, it sharply reduces the sunk costs of entry for firms (just as does the interconnection and resale of elements obligations).[76] And as with element pricing, it may be sensible to foster entry by setting artificially low wholesale prices (perhaps by sharply limiting the share

73. For a general description of TELRIC and ECPR, and the relative efficacy, see Michael J. Doane et al., *Having Your Cake—How to Preserve Universal-Service Cross Subsides While Facilitating Competitive Entry*, 16 YALE J. REG. 311, 312, 317-320, 322-326 (1999).

74. I ignore the possibility that such a pricing rule might constitute an unconstitutional "deregulatory taking," as Sidak and Spulber have argued extensively, *see* SIDAK & SPULBER, *supra* note 71, because as a legal matter, I find it unlikely that such a claim would succeed. For rebuttals to the "deregulatory takings" argument, see, for example, William J. Baumol & Thomas W. Merrill, *Deregulatory Takings, Breach of the Regulatory Contract, and the Telecommunications Act of 1996*, 72 N.Y.U. L. REV. 1037 (1997); Jim Rossi, *The Irony of Deregulatory Takings*, 77 TEX. L. REV. 297 (1998); and Chen, *supra* note 72.

75. For a discussion of such non-recurring costs, see Nicholas Economides, The Telecommunications Act of 1996 and its Impact 15 (March 1998) (Discussion Paper EC-98-08 Stern School of Business, N.Y.U.) (available at <http://www.stern.nyu.edu/networks/papers.html>).

76. *See* Kearney & Merrill, *supra* note 25, at 1357-58 (1998).

of overhead expenses a LEC may include in its wholesale prices).[77] Of course, such an approach has little intrinsic value, since a non-facilities-based entrant, who only resells LEC services, is unlikely to contribute towards a long-run competitive market structure. Even though purely resale entry is of far less value than facilities-based entry, however, such entry should be encouraged in the short run because in the long run a piecemeal entrant might become increasingly facilities based and so present a real challenge to the incumbent's dominant status and ability to harm rivals.

Another strong implication of the predation and path dependency concerns described above is that regulators should be quite cautious about providing incumbent LECs regulatory relief, including pricing flexibility, before putative entrants are established as competitors. In the long run, of course, regulatory relief is essential if competition is to yield substantial benefits. But the long run is a long time (in the case of AT&T and the interexchange market, it was almost 12 years), and during the transitional period concerns about predation by the incumbent, and the related social interest in fostering new carriers, should be an important consideration against premature relief. The neoclassical objection to this argument is of course that any entry fostered by price floors imposed on incumbents is "inefficient" and should be discouraged;[78] but the obvious response should by now be clear – steps that are in the long term unacceptable may be defensible as intermediate steps necessary to create a competitive market. In particular, such actions (or inaction, in the case of denying pricing flexibility) can be defended as necessary to create conditions under which firms are willing to enter local exchange markets, and to provide a breathing period during which those new entrants can become sufficiently well established that they are able to resist anticompetitive behavior and threats by the dominant incumbent.[79]

77. Of course as with pricing components below true economic cost, such a wholesale pricing rule is probably not efficient, in the sense that may induce inefficient entry. However, as with TELRIC, such a rule may be defensible transitional measure, as a means of altering existing market conditions that permit the incumbent to take advantage of its dominance.

78. *See* Sidak & Spulber, *supra* note 68, at 125-26 (1998).

79. I would note that most of the arguments I have presented here apply with equal force to the cable/video delivery industry, where again competitive entry has been extremely scarce. Even well positioned LECs have hesitated to enter these markets in the face of large sunk costs, uncertain demand, and concerns over predation. The lack of such entry is particularly surprising in light of studies suggesting that quite limited economies of scale are lost from cable overbuilds, *see* ROBERT CRANDALL AND HAROLD FURCHTGOTT-ROTH, CABLE TV: REGULATION OR COMPETITION? 85 (1996). The lack of competitive entry into cable suggests that the concerns raised in this paper are very much relevant to the video distribution industry. The 1996 Act has not done much to

Finally, aside from providing support for fostering, and frankly subsidizing entrants, as well as maintaining sometimes cumbersome regulation of incumbents, the anticompetitive concerns described in Part II of this paper also justify the 1996 Act's approach in Section 271 of providing incumbent LECs with carrots—primarily in the form of interexchange entry for Bell Operating Company LECs ("BOCs")[80]—as a means of discouraging predatory and exclusionary behavior. Strategic behavior is difficult for regulators to spot or prevent, and oversight alone is unlikely to be sufficient to eliminate it, or even to adequately control it. For example, predatory signaling strategies are difficult to distinguish from targeted competitive responses to entry, and price or supply squeezes through denial of timely access to inputs can be masked as temporary delays or unreasonable demands by new entrants (which, indeed, they sometimes might be). Thus some incentive must be provided to the incumbents to refrain from strategic conduct, and permit entry into their markets. The Act seeks to do this through the *quid pro quo* of interexchange entry if local entry occurs.

Unfortunately, current evidence suggests that this reward may be inadequate to convince BOCs to give up lucrative local monopolies. Nonetheless, the retention of *some* carrot seems essential if anticompetitive behavior by the Bells is to be discouraged, which provides a powerful argument against premature relief under Section 271 which would permit interexchange entry by BOCs before local competition is well established.[81] Of course, in deciding whether or not to grant a particular BOC's petition to provide interexchange services, the FCC must follow the statutory language of Section 271, which appears to permit entry even before local competition is fully established if the BOC has published an appropriate statement indicating the terms and conditions on which it generally offers access and interconnection to competitors.[82] However, Section 271 also instructs the FCC to deny a BOC request for interexchange entry if it believes such entry would be inconsistent "with the public interest, convenience, and necessity."[83] The analysis presented here suggests that the FCC should exercise this authority by setting especially stringent standards for assessing a Section 271 application premised

remedy these concerns other than removing legal entry barriers, and the strong implication of the argument I have presented here today is that that will not be enough.

80. *See* Telecommunications Act of 1996 § 271, 47 U.S.C. § 271 (1998).

81. It should be noted that the argument set forth in this paper against interexchange entry by Bell Operating Companies does not in any way rest on putative concerns about anticompetitive effects in the *interexchange* market (a risk which I tend to discount).

82. See Telecommunications Act of 1996, §271(d)(3)(A)(ii), 47 U.S.C. § 271(d)(3)(A)(ii).

83. *Id.*, §271(d)(3)(C), 47 U.S.C. § 271(d)(3)(C).

on the mere publication of a statement of terms by a BOC, as opposed to an application premised on the existence of actual, facilities-based competition in the BOC's local exchange markets.[84]

Conclusion

In the areas of antitrust and regulatory policy, as perhaps everywhere, intellectual fashions move in cycles. From the Great Depression through the 1960s, governmental intervention was the favored response to perceived market problems, resulting in both an aggressive antitrust enforcement policy and a commitment to pervasive regulation of a broad range of industries, including many structurally competitive industries where regulation was socially disastrous such as natural gas production, aviation, and trucking. Spurred on by the academic writings of the Chicago School and Public Choice theorists who demonstrated the irrationality and social waste engendered by much of the regulation and antitrust enforcement of this era, the 1970s and 1980s witnessed a sharp backlash against governmental intervention. The watchwords of this era were deregulation, *laissez faire*, and efficiency. By the late 1990s, however, that counterrevolution has also passed its peak. Today, the instinctive distrust of any governmental action, and the almost religious faith in free markets, which characterized the deregulatory movement, seem somewhat naive. There is a growing recognition instead that unregulated markets do not necessarily operate perfectly, that successful, anticompetitive behavior by firms is in fact far more plausible and common than we perhaps thought, and that the social costs of these phenomena are substantial. So, the cycle appears to be turning back towards more government oversight of markets.

This paper is clearly part of this cyclical movement. It relies on recent academic writing developing sophisticated models of strategic, anticompetitive behavior by dominant firms to suggest that such behavior should be very much of concern in the local telecommunications markets that the 1996 Telecommunications Act seeks to "deregulate" and make competitive. This paper also builds upon other scholarship challenging the efficiency of unregulated markets based on the related phenomena of network effects, increasing returns, and path dependency. Ultimately, the

84. Arguably, the FCC should adopt a policy under the public interest standard of denying *all* Section 271 petitions that do not demonstrate the existence of actual local competition. Such a policy, however, might be deemed illegal because it is inconsistent with Congress's apparent intent, as expressed in Section 271, of permitting interexchange entry before competition is established. In any event, the extent of the FCC's authority to deny Section 271 petitions under the "public interest" standard is beyond the scope of this paper.

prescriptions offered are for greater governmental intervention into local telephone markets, and indeed, intervention of a sort that appears to violate the efficiency norms of the Chicago School scholarship and the deregulatory movement.

In closing, therefore, it must be emphasized that the arguments made here are *not* for a return to the bad old days of pervasive regulation based on a visceral distrust of market forces. None of the arguments undermine the cogent and now uncontroversial criticisms of traditional regulatory schemes offered by the Chicago School. Furthermore, there is no doubt that almost all of the deregulation and regulatory reform (to say nothing of the reformulation of antitrust law) implemented in response to the Chicago critique was necessary, beneficial, and should under no circumstances be reversed. Instead, what is offered is a much more modest proposal—a proposal for limited, temporary, and nonpervasive regulatory action within specific markets where competition is unlikely to develop on its own. The purpose of the intervention is not to displace market forces with permanent oversight, but rather to foster competition, by creating the conditions necessary for competition to flourish. Once that goal has been reached, the strong implication of this paper is that it is time for regulators to pack up and go home. Of course, this is not to say that even temporary regulation does not pose risks. Regulatory schemes, once put into place, have proven notoriously difficult to dismantle. But, the arguments presented here suggest that those risks may well be worth taking, because the costs of not acting may be even greater.